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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/768,431	01/30/2004	Deborah Lewandowski Barclay	LUC-463/Barclay 12-10-6-9	8752

47382 7590 04/08/2008
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EXAMINER	
AJIBADE AKONAI, OLUMIDE	

ART UNIT	PAPER NUMBER
2617	

MAIL DATE	DELIVERY MODE
04/08/2008	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/768,431	BARCLAY ET AL.	
	Examiner	Art Unit	
	OLUMIDE T. AJIBADE AKONAI	2617	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *03 January 2008*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-23* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-23* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *30 January 2004* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.

4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .

5) ☐ Notice of Informal Patent Application

6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

The factual inquiries set forth in *Graham* **v.** *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

2. Claims 1-13, 16-21 and 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over **O'Donnell 6,266,514** in view of **Kalev 6,308,071** and **Hsu et al 7,272,387 (hereinafter Hsu)** and **Lipsanen et al 7,103,345 (hereinafter Lipsanen)**.

Regarding **claim 1**, O'Donnell discloses an apparatus comprising: a network component (base station controller BSC, see figs. 3, lines 33-38) that employs one or more call characteristics (signal strength, see col. 6, lines 39-46) to make a determination to initiate a request for one or more positions of one or more mobile stations (BSC requests for the position of mobile station 4 if the signal strength falls below a specified threshold value, see figs. 3 and 4, col. 6, lines 6-38); wherein the network component receives, in response to the request, the one or more positions of the positions of the one or more mobile stations from a position component (positioning function 8, see col. 6, lines 21-38); and wherein the position component determines the one of more positions of the one or more mobile stations continuously (the automatic mapping of areas with poor wireless coverage using mobile position information is done in real time, indicating that the processes involved I the automatic mapping, including the determination of the position of the mobile station is done continuously, see col. 6, lines 21-38, col. 7, lines 36-47).

O'Donnell does not disclose a network component that employs one or more call parameters to identify one or more cellular network cells associated with the one or more mobile stations.

In the same field of endeavor, Kalev discloses a network component (base station controller 4, see figs. 1 and 2, col. 3, lines 30-32) that employs one or more call

parameters (location area code LAC and cell identity CI, see fig. 3a, col. 5, lines 10-15) to identify one or more cellular network cells associated with the one or more mobile stations (see col. 5, lines 6-16).

It would therefore have been obvious to one of ordinary skill in the art at the time the invention was made to combine the above teaching of Kalev, by transmitting the LAC and CI of the cells A, B, C and D from the operation and maintenance center (OMC) to the base station controller, into the system of O'Donnell for the benefit of providing mobile traffic information that can be used for network planning.

O'Donnell, as modified by Kalev, does not explicitly disclose wherein at least one of the one or more call parameters employed to identify one or more cellular network cells is a telephony number of the one or more mobile stations.

Hsu discloses in a GSM network (see figs. 1 and 2, col. 2, lines 27-35), determining one or more cellular network cells (LA1, LA2, or LA3, see figs. 1 and 2, col. 2, lines 40-45, lines 61-67, col. 3, lines 1-10), using one or more call parameters, wherein the at least one or more call parameters employed to identify the one or more cellular network cells is a telephony number of the one or more mobile stations (using the MSISDN of a mobile station MS to determine the LA of the MS, see figs. 1 and 2, col. 2, lines 40-45, lines 61-67, col. 3, lines 1-10).

It would therefore have been obvious to one of ordinary skill in the art, at the time the invention was made to combine the teaching of Hsu, by inquiring the

MSISDN of the mobile station from the VLR, for the purpose of determining the location area LA in which the mobile station is located.

O'Donnell as modified by Kalev and Hsu do not specifically disclose wherein a switch component assigns a channel to the at least one of the one or more mobile stations for a call upon a comparison of a calling party number with the call parameter.

In the same field of endeavor, Lipsanen discloses in a telecommunication network including a cellular radio telephone network (see fig. 1), a switch component (MSC 1, see fig. 1, col. 3, line 16), wherein the switch component assigns a channel to the at least one of the one or more mobile stations for a call upon a comparison of a calling party number (A-number, see col. 3, lines 40-41) with the call parameter (assigning a channel communication for call between mobile terminal 4 and a fixed telephone 5, wherein the MSC searches a database to verify the A-number before assigning a channel for communication between the mobile telephone 4 and fixed telephone 5, see fig. 1, col. 3, lines 38-56, col. 4, lines 6-13).

It would therefore have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teaching of Lipsanen, by having the MSC conduct a search of a database for the A-number in response from a call from a mobile terminal, into the system of O'Donnell as modified by Kalev and Hsu, for the benefit of verifying the right of the calling party to place a call.

Regarding **claim 2**, as applied to claim 1, O'Donnell discloses the claimed invention, in addition, O'Donnell further discloses wherein the network component (base

station controller BSC, see figs. 3, lines 33-38) performs a comparison of the one or more call characteristics (measurements are compared to specified threshold values, signal strength, see col. 6, lines 6-23, 39-46) with one or more thresholds (see col. 6, lines 6-23) to make the determination to initiate the request for the one or more positions of the one or more mobile stations (BSC requests for the position of mobile station 4 if the signal strength falls below a specified threshold value, see figs. 3 and 4, col. 6, lines 6-38).

Regarding **claim 3**, as applied to claim 2, O'Donnell further discloses wherein the one or more call characteristics comprise a pilot signal strength characteristic (signal strength, see col. 6, lines 39-46), and wherein the one or more thresholds comprise a pilot signal strength threshold (see col. 6, lines 6-23), and wherein the network component (base station controller BSC, see figs. 3, lines 33-38) performs a comparison of the pilot signal strength characteristic with the pilot signal strength threshold (measurements are compared to specified signal strength threshold values, see col. 6, lines 6-23, 39-46); and wherein the network component makes the determination to initiate the request for the one or more positions of the one or more mobile stations based on a result of the comparison of the pilot signal strength characteristic with the pilot signal strength threshold (BSC requests for the position of mobile station 4 if the signal strength falls below a specified threshold value, see figs. 3 and 4, col. 6, lines 6-38).

Regarding **claim 4**, as applied to claim 2, O'Donnell further discloses wherein the network component (base station controller BSC, see figs. 3, lines 33-38) employs the

one or more call characteristics (signal strength, see col. 6, lines 39-46) to create one or more call statistics (dropped calls see col. 6, lines 60-63), and wherein the one or more thresholds comprise one or more call characteristic thresholds (see col. 6, lines 6-23) and one or more call statistic thresholds (accumulation of dropped calls, see col. 6, lines 60-67, col. 7, lines 1-7); and wherein the network component performs a comparison of the one or more call statistics with the one or more call statistic thresholds (when dropped calls are identified, the positioning function of the BSC is activated to determine the location of the mobile station, see col. 6, lines 60-67, col. 7, lines 1-9); and wherein the network component employs a comparison of the one or more call characteristics with the one or more call characteristic thresholds (measurements are compared to specified signal strength threshold values, see col. 6, lines 6-23, 39-46) and the comparison of the one or more call statistics with the one or more call statistic thresholds to make the determination to initiate the request (when dropped calls are identified, the positioning function of the BSC is activated to determine the location of the mobile station, see col. 6, lines 60-67, col. 7, lines 1-9).

Regarding **claim 5**, as applied to claim 2, O'Donnell further discloses wherein the network component (base station controller BSC, see figs. 3, lines 33-38) comprises an interface (inherent since the BSC receives one or more quality characteristic threshold levels from the operations and management center, OMC 1, thereby requiring that the BSC have an interface to receive the threshold values from the OMC, see figs. 3 and 4, col. 3, lines 60-66), and wherein the network component receives the one or more thresholds from a service provider (operations and management center, OMC 1, see

figs. 3 and 4, col. 3, lines 60-66) through employment of the interface (BSC receives one or more quality characteristic threshold levels from the operations and management center, OMC 1, see figs. 3 and 4, col. 3, lines 60-66).

Regarding **claim 6**, as applied to claim 1, O'Donnell further discloses wherein the network component (base station controller BSC, see figs. 3, lines 33-38) employs the determination to initiate the request to promote an avoidance of congestion in one or more cellular network communication paths (automatically mapping the areas of poor coverage helps in that minimal loading is required on the current system, see col. 7, lines 36-47).

Regarding **claim 7**, as applied to claim 6, O'Donnell further discloses wherein the network component (base station controller BSC, see figs. 3, lines 33-38) makes the determination to initiate the request upon an exceedance of the one or more call characteristics relative to one or more thresholds (BSC requests for the position of mobile station 4 if the signal strength is above a specified threshold value, see figs. 3 and 4, col. 6, lines 6-38); and wherein upon the exceedance of the one or more call characteristics relative to the one or more thresholds, the network component and the position component (GPS receiver 220, see fig. 2, col. 5, line 6) cooperate to obtain the one or more positions of the one or more mobile stations (see col. 4, lines 66-67, col. 5, lines 1-7).

Regarding **claim 8**, as applied to claim 7, O'Donnell further discloses wherein upon a termination of the exceedance of the one or more call characteristics relative to the one or more thresholds (see col. 5, lines 33-59), the network component (base

station controller BSC, see figs. 3, lines 33-38) and the position component (GPS receiver 220, see fig. 2, col. 5, line 6) cooperate to discontinue attainment of the one or more positions of the one or more mobile stations (see col. 5, lines 33-59).

Regarding **claim 9**, as applied to claim 1, O'Donnell further discloses wherein the network component (base station controller BSC, see figs. 3, lines 33-38) employs the one or more call characteristics (signal strength, see col. 6, lines 39-46) to perform a selection of the one or more mobile stations from a plurality of mobile stations (mobile stations 4 transmit signal quality measurements to the BSC and if the measured signal strength is below of above a threshold value, the BSC identifies the location of the associated mobile station 9, see figs. 3 and 4, col. 6, lines 6-23), and wherein the network component employs the selection to formulate the request for the one or more positions of the one or more mobile stations from the plurality of mobile stations (see figs. 3 and 4, col. 6, lines 6-23).

Regarding **claim 10**, as applied to claim 1, O'Donnell further discloses wherein the one or more mobile stations (mobile stations 4, see fig. 3, col. 6, line 11) are associated with the one or more cellular network cells (see col. 5, lines 60-67, col. 6, lines 1-5); and wherein the network component (base station controller BSC, see figs. 3, lines 33-38) employs the one or more call characteristics (signal strength, see col. 6, lines 39-46) to perform a selection of the one or more cellular network cells from a plurality of cellular network cells (mobile stations 4 transmit signal quality measurements to the BSC and if the measured signal strength is below of above a threshold value, the BSC identifies the location of the associated mobile station 9, see figs. 3 and 4, col. 5,

lines 60-67, col. 6, lines 1-23); and wherein the network component employs the selection to formulate the request for the one or more positions of the one or more mobile stations that are associated with the one or more cellular network cells (see figs. 3 and 4, col. 6, lines 6-23).

Regarding **claim 11**, as applied to claim 10, O'Donnell further discloses wherein the network component (base station controller BSC, see figs. 3, lines 33-38) employs the switch component (mobile switching center MSC, see col. 5, lines 40-42) to identify the one or more mobile stations that are associated with the one or more cellular network cells (see col. 5, lines 32-49); and wherein the network component employs the switch component to determine the one or more positions of the one or more mobile stations that are associated with the one or more cellular network cells (see col. 5, lines 32-49).

Regarding **claim 12**, as applied to claim 1, O'Donnell further discloses wherein the network component (base station controller BSC, see figs. 3, lines 33-38) receives the one or more positions of the one or more mobile stations in response to the request (mobile station transmits location information to the BSC, see figs. 3 and 4, col. 6, lines 24-28); and wherein the network component employs the one or more positions of the one or more mobile stations and the one or more call characteristics to develop a coverage map (the determined geographical can be mapped to provide a visual representation of areas wit poor coverage, see col. 4, lines 45-52).

Regarding **claim 13**, as applied to claim 1, O'Donnell further discloses the switch component (mobile switching center MSC, see col. 5, lines 40-42) that provides the one

or more call characteristics (signal strength, see col. 6, lines 39-46) to the network component (base station controller BSC, see figs. 3, lines 33-38), wherein the network component employs the one or more call characteristics to make a determination to initiate a request to the switch component (BSC requests for the position of mobile station 4 if the signal strength falls below a specified threshold value, see figs. 3 and 4, col. 6, lines 6-38); and wherein the switch component obtains the one or more positions of the one or more mobile stations based on the request to the switch component (see col. 5, lines 33-49).

Regarding **claim 16**, as applied to claim 13, O'Donnell further discloses wherein the network component (base station controller BSC, see figs. 3, lines 33-38) and the switch component (mobile switching center MSC, see col. 5, lines 40-42) receive the one or more positions of the one or more mobile stations from the position component (the MSC and BSC receive the current location of the mobile station, see col. 5, lines 33-49, col. 6, lines 38); and wherein the network component and the switch component cooperate to develop a coverage map through employment of the one or more positions of the one or more mobile stations (see col. 5, lines 49-52, col. 6, lines 32-38).

Regarding **claim 17**, as applied to claim 16, O'Donnell further discloses wherein the position component (GPS 220, see fig. 2, col. 5, line 6) employs one or more of an Enhanced Forward Link Trilateration algorithm and an 1S-80l solution using an Assisted Global Positioning System (AGPS), Advanced Forward Link Trilateration (AFLT) or combined AGPS/MLT algorithm to determine the one or more positions of the one or more mobile stations (the position of the mobile station can be determined using the

GPS receiver in the mobile station or by employing triangulation, see col. 5, lines 2-19, col. 6, lines 24-32).

Regarding **claim 18**, O'Donnell further discloses a method, comprising the steps of: initiating a request for one or more positions of one or more mobile stations through employment of one or more call characteristics (BSC requests for the position of mobile station 4 if the signal strength falls below a specified threshold value, see figs. 3 and 4, col. 6, lines 6-38) and one or more call parameters (bit error rate or frame error rate, see col. 5, lines 20-31); receiving, in response to the request, the one or more positions of the one or more mobile stations (see col. 6, lines 21-38); and determining the one or more positions of the one or more mobile stations continuously (the automatic mapping of areas with poor wireless coverage using mobile position information is done in real time, indicating that the processes involved I the automatic mapping, including the determination of the position of the mobile station is done continuously, see col. 6, lines 21-38, col. 7, lines 36-47).

O'Donnell does not specifically disclose one or more call parameters to identify one or more cellular network cells associated with the one or more mobile stations.

In the same field of endeavor, Kalev discloses one or more call parameters that employs one or more call parameters (location area code LAC and cell identity CI, see fig. 3a, col. 5, lines 10-15) to identify one or more cellular network cells associated with the one or more mobile stations (see col. 5, lines 6-16).

It would therefore have been obvious to one of ordinary skill in the art at the time the invention was made to combine the above teaching of Kalev, by transmitting the LAC and CI of the cells A, B, C and D from the operation and maintenance center (OMC) to the base station controller, into the system of O'Donnell for the benefit of providing mobile traffic information that can be used for network planning.

O'Donnell, as modified by Kalev, does not explicitly disclose wherein the at least one or more call parameters employed to identify the one or more cellular network cells s is a telephony number of the one or more mobile stations.

Hsu discloses in a GSM network (see figs. 1 and 2, col. 2, lines 27-35), determining one or more cellular network cells (LA1, LA2, or LA3, see figs. 1 and 2, col. 2, lines 40-45, lines 61-67, col. 3, lines 1-10), using one or more call parameters, wherein the at least one or more call parameters employed to identify the one or more cellular network cells is a telephony number of the one or more mobile stations (using the MSISDN of a mobile station MS to determine the LA of the MS, see figs. 1 and 2, col. 2, lines 40-45, lines 61-67, col. 3, lines 1-10).

It would therefore have been obvious to one of ordinary skill in the art, at the time the invention was made to combine the teaching of Hsu, by inquiring the MSISDN of the mobile station from the VLR, for the purpose of determining the location area LA in which the mobile station is located.

O'Donnell as modified by Kalev and Hsu do not specifically disclose wherein a switch component assigns a channel to the at least one of the one or more

mobile stations for a call upon a comparison of a calling party number with the call parameter.

In the same field of endeavor, Lipsanen discloses in a telecommunication network including a cellular radio telephone network (see fig. 1), a switch component (MSC 1, see fig. 1, col. 3, line 16), wherein the switch component assigns a channel to the at least one of the one or more mobile stations for a call upon a comparison of a calling party number (A-number, see col. 3, lines 40-41) with the call parameter (assigning a channel communication for call between mobile terminal 4 and a fixed telephone 5, wherein the MSC searches a database to verify the A-number before assigning a channel for communication between the mobile telephone 4 and fixed telephone 5, see fig. 1, col. 3, lines 38-56, col. 4, lines 6-13).

It would therefore have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teaching of Lipsanen, by having the MSC conduct a search of a database for the A-number in response from a call from a mobile terminal, into the system of O'Donnell as modified by Kalev and Hsu, for the benefit of verifying the right of the calling party to place a call.

Regarding **claim 19**, as applied to claim 18, O'Donnell further discloses wherein the step of initiating the request for the one or more positions of the one or more mobile stations through employment of the one or more call characteristics comprises the steps of: performing a comparison of the one or more call characteristics with one or more thresholds (BSC requests for the position of mobile station 4 if the signal strength falls below a specified threshold value, see figs. 3 and 4, col. 6, lines 6-38).

, and initiating the request for the one or more positions of the one or more mobile stations based on the comparison (BSC requests for the position of mobile station 4 if the signal strength falls below a specified threshold value, see figs. 3 and 4, col. 6, lines 6-38).

Regarding **claim 20**, as applied to claim 19, O'Donnell further discloses wherein the step of initiating the request for the one or more positions of the one or more mobile stations based on the comparison comprises the steps of: determining the one or more call parameters (BSC compiles the mobile station identification, see col. 6, lines 32-35) associated with the one or more thresholds (see col. 6, line 32-38), identifying the one or more mobile stations from a plurality of mobile stations through employment of the one or more call parameters (see col. 6, line 32-38); and initiating the request for the one or more positions of the one or more mobile stations through employment of the one or more call parameters (BSC requests for the position of mobile station 4 if the signal strength falls below a specified threshold value, see figs. 3 and 4, col. 6, lines 6-38).

Regarding **claim 21**, O'Donnell further discloses a computer readable medium having executable instructions for performing steps comprising: means (Base station controller BSC, see col. 5, lines 33-38) in the one or more media for initiating a request for one or more positions of one or more mobile stations through employment of one or more call characteristics (BSC requests for the position of mobile station 4 if the signal strength falls below a specified threshold value, see figs. 3 and 4, col. 6, lines 6-38) and one or more call parameters (bit error rate or frame error rate, see col. 5, lines 20-31).

O'Donnell does not specifically disclose one or more call parameters to identify one or more cellular network cells associated with the one or more mobile stations.

In the same field of endeavor, Kalev discloses one or more call parameters that employs one or more call parameters (location area code LAC and cell identity CI, see fig. 3a, col. 5, lines 10-15) to identify one or more cellular network cells associated with the one or more mobile stations (see col. 5, lines 6-16).

It would therefore have been obvious to one of ordinary skill in the art at the time the invention was made to combine the above teaching of Kalev, by transmitting the LAC and CI of the cells A, B, C and D from the operation and maintenance center (OMC) to the base station controller, into the system of O'Donnell for the benefit of providing mobile traffic information that can be used for network planning.

O'Donnell, as modified by Kalev, does not explicitly disclose wherein the at least one or more call parameters employed to identify the one or more cellular network cells least one of the one or more call parameters is a telephony number of the one or more mobile stations.

Hsu discloses in a GSM network (see figs. 1 and 2, col. 2, lines 27-35), determining one or more cellular network cells (LA1, LA2, or LA3, see figs. 1 and 2, col. 2, lines 40-45, lines 61-67, col. 3, lines 1-10), using one or more call parameters, wherein the at least one or more call parameters employed to identify the one or more cellular network cells is a telephony number of the one or more mobile stations (using

the MSISDN of a mobile station MS to determine the LA of the MS, see figs. 1 and 2, col. 2, lines 40-45, lines 61-67, col. 3, lines 1-10).

It would therefore have been obvious to one of ordinary skill in the art, at the time the invention was made to combine the teaching of Hsu, by inquiring the MSISDN of the mobile station from the VLR, for the purpose of determining the location area LA in which the mobile station is located.

O'Donnell as modified by Kalev and Hsu do not specifically disclose wherein a switch component assigns a channel to the at least one of the one or more mobile stations for a call upon a comparison of a calling party number with the call parameter.

In the same field of endeavor, Lipsanen discloses in a telecommunication network including a cellular radio telephone network (see fig. 1), a switch component (MSC 1, see fig. 1, col. 3, line 16), wherein the switch component assigns a channel to the at least one of the one or more mobile stations for a call upon a comparison of a calling party number (A-number, see col. 3, lines 40-41) with the call parameter (assigning a channel communication for call between mobile terminal 4 and a fixed telephone 5, wherein the MSC searches a database to verify the A-number before assigning a channel for communication between the mobile telephone 4 and fixed telephone 5, see fig. 1, col. 3, lines 38-56, col. 4, lines 6-13).

It would therefore have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teaching of Lipsanen, by having the MSC conduct a search of a database for the A-number in response from a call from a mobile

terminal, into the system of O'Donnell as modified by Kalev and Hsu, for the benefit of verifying the right of the calling party to place a call.

Regarding **claim 23**, O'Donnell further discloses wherein the thresholds provide a measure of a quality of service provided to the one or more mobile stations (see col. 6, lines 39-39).

3. Claims 14 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over **O'Donnell 6,266,514** in view of **Kalev 6,308,071** and **Hsu et al 7,272,387 (hereinafter Hsu**) and **Lipsanen et al 7,103,345 (hereinafter Lipsanen**) as applied to claim 13 above, and further in view of **Jeong (20050119013)**.

Regarding **claim 14**, as applied to claim 13, O'Donnell, as modified by Kalev and Hsu and Lipsanen discloses the claimed invention except wherein the network component provides to the switch component one or more call parameters; wherein the switch component employs the one or more call parameters to perform an identification of the one or more mobile stations from a plurality of mobile stations wherein the switch component employs the identification of the one or more mobile stations from the plurality of mobile stations to obtain the one or more positions of the one or more mobile stations.

In an analogous art, Jeong teaches wherein the network component (BSC 30, see fig. 1, p.2, [0026]) provides to the switch component (MSC/VLR_1, see fig. 8, p.4, [0048]) one or more call parameters (see fig. 8, p.4, [0048]); wherein the switch component employs the one or more call parameters (phone number of mobile station MS_2, see fig. 8, p.4, [0048]-[0050]) to perform an identification of the one or more

mobile stations from a plurality of mobile stations (see figs. 1 and 8, p.4, [0048]), wherein the switch component employs the identification of the one or more mobile stations from the plurality of mobile stations to obtain the one or more positions of the one or more mobile stations (the MSC/VLR_1 utilizes the phone number to determine the location of MS_2, see fig. 8, p.4, [0050]).

It would therefore have been obvious to one of ordinary skill in the art to combine the teaching of Jeong into the system of O'Donnell, as modified by Kalev and Hsu and Lipsanen for the benefit of reducing the loads in the Home Locator Register.

Regarding **claim 15**, as applied to claim 14, the combination of O'Donnell, Kalev, Hsu, Lipsanen and Jeong disclose the claimed invention.

O'Donnell, Kalev, Hsu and Lipsanen do not disclose wherein the one or more mobile stations are associated with one or more calls; wherein the switch component employs the one or more call parameters to perform an identification of the one or more calls from a plurality of calls, wherein the switch component employs the identification of the one or more calls from the plurality of calls to obtain the one or more positions of the one or more mobile stations that are associated with the one or more calls.

Jeong, however, further discloses wherein the one or more mobile stations (MS_1 and MS_2, see p.4, [0048]) are associated with one or more calls; wherein the switch component (MSC/VLR_1, see fig. 8, p.4, [0048]) employs the one or more call parameters (phone number of mobile station MS_2, see fig. 8, p.4, [0048]-[0050]) to perform an identification of the one or more calls from a plurality of calls (see figs. 1 and

8, p.4, [0048]-[0050]), wherein the switch component employs the identification of the one or more calls from the plurality of calls to obtain the one or more positions of the one or more mobile stations that are associated with the one or more calls (the MSC/VLR_1 utilizes the phone number to determine the location of MS_2, see fig. 8, p.4, [0050]).

It would therefore have been obvious to one of ordinary skill in the art to further modify the combination of O'Donnell, Kalev, Hsu, Lipsanen and Jeong for the benefit of connecting a call.

4. Claim 22 is rejected under 35 U.S.C. 103(a) as being unpatentable over **O'Donnell 6,266,514** in view of **Kalev 6,308,071** and **Hsu et al 7,272,387 (hereinafter Hsu**) and **Lipsanen et al 7,103,345 (hereinafter Lipsanen**) as applied to claim 16 above and further in view of **Alperovich et al 6,233,448 (hereinafter Alperovich**).

Regarding **claim 22**, as applied to claim 16, O'Donnell, as modified by Kalev and Hsu and Lipsanen discloses the claimed limitation except wherein the position determination component is pre-provisioned with one or more intervals of time to determine the one or more positions of the one or more mobile stations.

Alperovich, however, discloses a position determination component that is pre-provisioned with one or more intervals of time to determine the one or more positions of the one or more mobile stations (see fig. 1, col. 3, lines 29-64).

It would therefore have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teaching of Alperovich into the system

of O'Donnell, as modified by Kalev and Hsu for the benefit of determining the current position of a mobile station.

Response to Arguments

Applicant's arguments with respect to claims 1-23 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Martin et al 5,765,108 discloses a telecommunications system.

Lea 5,586,170 discloses cellular devices, systems and methods using intercell macro-diversity and dynamic channel allocation.

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to OLUMIDE T. AJIBADE AKONAI whose telephone number is (571)272-6496. The examiner can normally be reached on M-F, 8.30p-5p.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Charles Appiah can be reached on 571-272-7904. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

OA

/Charles N. Appiah/
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